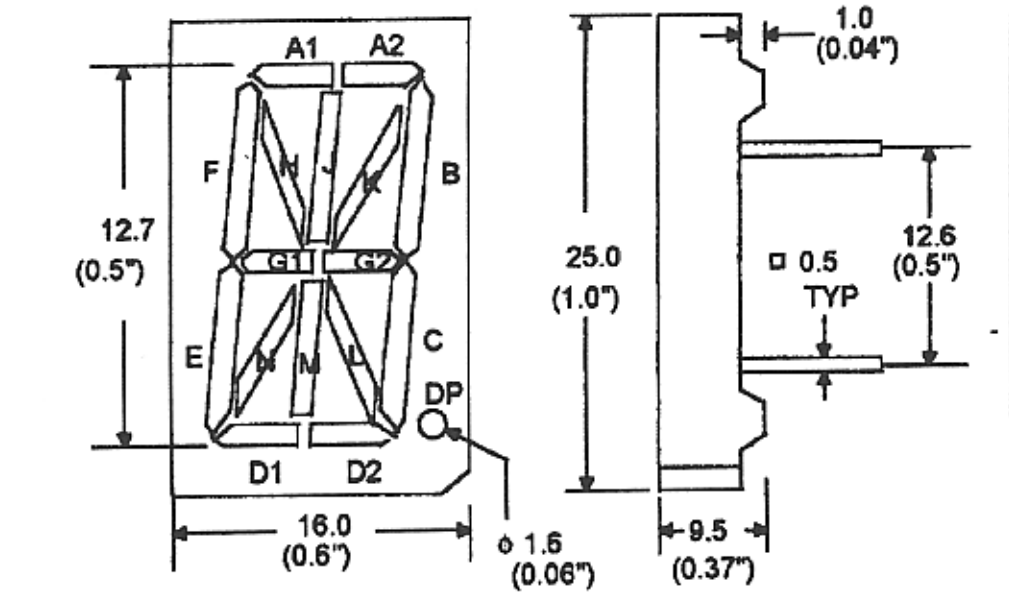
140898

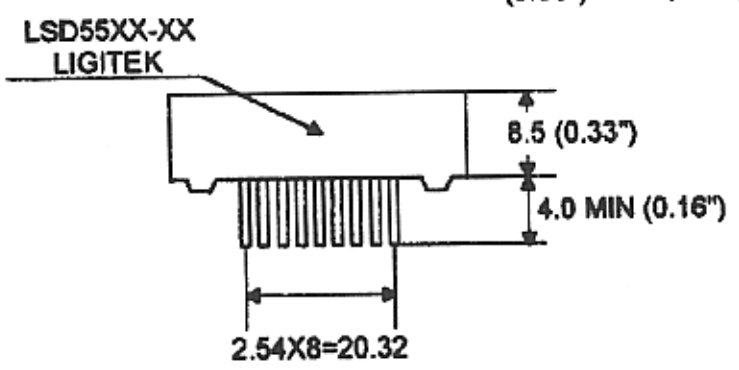
**LIGITEK**

## SINGLE DIGIT LED DISPLAY (0.5Inch) LSD555X/6X series



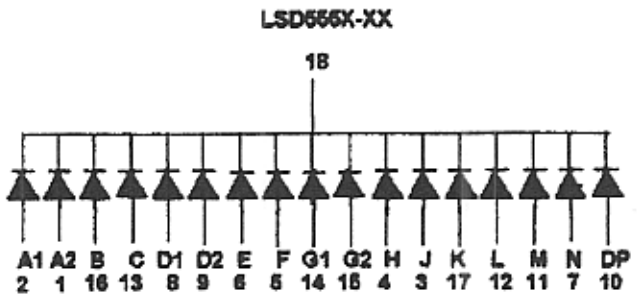
### PACKAGE DIMENSION

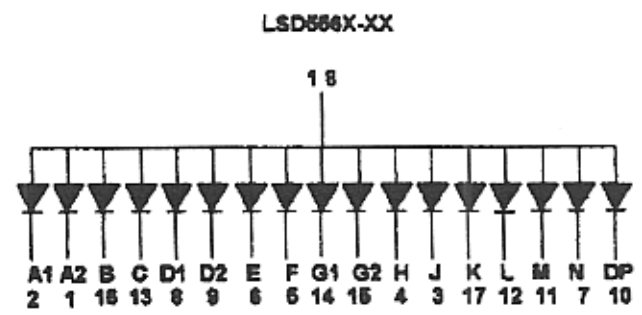



NOTE: All Dimension Are In Millimeters And (Inch)
Tolerance Is ±0.25(0.01") Unless Otherwise Noted

### INTERNAL CIRCUIT DIAGRAM




- **Connection To Electrical Schematic**

***Electrical Connection***

| PIN NO. | LSD555X-XX | PIN NO. | LSD556X-XX |
|---|---|---|---|
| 1 | Anode A2 | 1 | Cathode A2 |
| 2 | Anode A1 | 2 | Cathode A1 |
| 3 | Anode J | 3 | Cathode J |
| 4 | Anode H | 4 | Cathode H |
| 5 | Anode F | 5 | Cathode F |
| 6 | Anode E | 6 | Cathode E |
| 7 | Anode N | 7 | Cathode N |
| 8 | Anode D1 | 8 | Cathode D1 |
| 9 | Anode D2 | 9 | Cathode D2 |
| 10 | Anode DP | 10 | Cathode DP |
| 11 | Anode M | 11 | Cathode M |
| 12 | Anode L | 12 | Cathode L |
| 13 | Anode C | 13 | Cathode C |
| 14 | Anode G1 | 14 | Cathode G1 |
| 15 | Anode G2 | 15 | Cathode G2 |
| 16 | Anode B | 16 | Cathode B |

## • Part Selection And Application Information (Ratings At 25°C Ambient)

| PART NO | CHIP | | common cathode or anode | λP (nm) | Δλ (nm) | Electrical | | | | | IV-M |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Vf(v) | | | Iv(mcd) | | |
| | material | emitted | | | | Min | Typ. | Max | Min | Typ. | |
| LSD5555-XX | GaAlAs | Red | Common Cathode | 660 | 20 | 1.5 | 1.7 | 2.4 | 2.0 | 3.4 | 2:1 |
| LSD5551-XX | GaP | Red | | 697 | 90 | 1.7 | 2.1 | 2.8 | 0.5 | 0.9 | 2:1 |
| LSD5552-XX | GaP | Green | | 565 | 30 | 1.7 | 2.1 | 2.8 | 1.6 | 2.6 | 2:1 |
| LSD5553-XX | GaAsP/GaP | Yellow | | 585 | 35 | 1.7 | 2.0 | 2.8 | 1.4 | 2.4 | 2:1 |
| LSD5554-XX | GaAsP/GaP | Orange | | 635 | 45 | 1.7 | 2.0 | 2.8 | 1.6 | 2.6 | 2:1 |
| LSD5565-XX | GaAlAs | Red | Common Anode | 660 | 20 | 1.5 | 1.7 | 2.4 | 2.0 | 3.4 | 2:1 |
| LSD5561-XX | GaP | Red | | 697 | 90 | 1.7 | 2.1 | 2.8 | 0.5 | 0.9 | 2:1 |
| LSD5562-XX | GaP | Green | | 565 | 30 | 1.7 | 2.1 | 2.8 | 1.6 | 2.6 | 2:1 |
| LSD5563-XX | GaAsP/GaP | Yellow | | 585 | 35 | 1.7 | 2.0 | 2.8 | 1.4 | 2.4 | 2:1 |
| LSD5564-XX | GaAsP/GaP | Orange | | 635 | 45 | 1.7 | 2.0 | 2.8 | 1.6 | 2.6 | 2:1 |

## • Absolute Maximum Rating (Ta=25°C)

| Parameter | Red | | Green | Yellow | Orange | Unit | Remark |
|---|---|---|---|---|---|---|---|
| Forward Current Per Chip | SR | H | G | Y | E | | |
| | 40 | 15 | 30 | 20 | 30 | mA | |
| Peak Current Per Chip (Duty 1/10, 0.1MS Pulse Width) | 200 | 60 | 120 | 80 | 120 | mA | |
| Power Dissipation Per Chip | 110 | 45 | 100 | 85 | 100 | mW | |
| Derating Linear From 25°C Per Chip | 0.45 | 0.25 | 0.45 | 0.45 | 0.45 | mA/ °C | |
| Reverse Current Per Any Chip | 10 | | 10 | 10 | 10 | μA | |
| Operating Temperature | -25°C TO +85°C | | | | | | |
| Storage Temperature | -25°C TO +85°C | | | | | | |

Solder Temperature 1/16 Inch Below Seating Plane For 3 Seconds At 260°C

## • Test Condition For Each Parameter

| Parameter | Symbol | Unit | Test Condition |
|---|---|---|---|
| Forward Voltage Per Chip | Vf | volt | If=20mA |
| Luminous Intensity Per Chip | Iv | mcd | If=10mA |
| Peak Emission Wavelength | λP | nm | If=20mA |